

## **GE Aircraft Contract Renewed**

*Austin, TX*

For the eighth year in a row, General Electric Aircraft has contracted with Clockwork Solutions, Inc. to conduct Time On Wing (TOW) analyses on the US Army's T700 family of engines. Throughout the years, Clockwork Solutions has developed and enhanced the TOW Evaluator tool to measure the observed engine life under various operating conditions and maintenance practices. These data are then coupled with Clockwork's Advanced Total Life-Cycle Assessment Software Tool (ATLAST™) to provide a forecast of depot returns by engine part number to help lean out Corpus Christi Army Depot (CCAD) management activities for T700 engines. This project is in support of the CCAD goal to improve Time on Wing (TOW) and reduce depot overhaul Repair Turn Around Time (RTAT), thus improving overall Fleet Readiness.

The TOW Evaluator, originally developed in 2005, can be used to calculate TOW given different population definitions like engine part number (-700, -701, -701C, and -701D), repair processes (e.g. Recapitalization), location of operation, repair location, and removal interval. The TOW Evaluator also allows the selection of starting date, ending date, time interval, causal failure code definition (causal failures), and method of TOW calculation. GE Aircraft and CCAD have made several improvements in the T700 engines and their repair processes. However, those improvements are masked by the harsher conditions in current deployed locations. The TOW Evaluator enables data to be partitioned so that "apples to apples" comparisons in TOW can be made and the effects of these improvements can be seen.

Through dynamic, stochastic simulation, ATLAST™ provides accurate forecasts of depot returns for engines by part number. The Army is moving to a "pure fleet" of -701D engines. ATLAST™ forecasts enable the GE/CCAD partnership to better plan the workload and supply requirements to convert incoming engines of older part numbers to the new -701D standard. We are proud of our service in support of Army Aviation Fleet Management and look forward to continuing this work in the future.

### **About Clockwork Solutions** ([www.clockwork-solutions.com](http://www.clockwork-solutions.com))

Clockwork Solutions develops and provides advanced availability and life cycle performance modeling and simulation technologies and conducts modeling support and consulting services. Clockwork is proud of the work it is doing across the defense services to improve supportability of systems through performance based modeling and forecasting.

Clockwork Solutions' proprietary modeling technology, SPAR™, uses unique Monte Carlo algorithms to build comprehensive, reliability-based predictive models of complex assets and their operational and logistical environments, such as a fleet of aircrafts, missile systems, a power plant and its distribution system, a group of chemical plants, etc.



**News Release**  
**January 2010**

Clockwork Solutions' customers include the US Army, the US Marine Corps, JPO MRAP, Lockheed Martin, Raytheon, EADS Astrium, the Israeli Defense Forces, GE Aircraft Engines, Chevron, ConocoPhillips, and many others. Clockwork Solutions, Inc. is headquartered in Austin, TX.

**Contact:** Email: [info@clockwork-solutions.com](mailto:info@clockwork-solutions.com) Website: <http://www.clockwork-solutions.com>